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ABSTRACT

The impact of a large in-migration of scientists and technicians on the educational policies of the Albuquerque, New Mexico, public school system from 1945 to 1965 was intestigated for the purpose of analyzing the educational politics of a system related to an increasing tempo of demands for a more academic curriculum. A case study design which relied heavily on historical methodology was employed to explore the articulation, processing, and implementation of demands. Collection and analysis of documents and interviews were the major research methods used. The pre-Sputnik era (1945-57) featured educational demands by "technocrats" which produced no educational response. The Sputnik era (1957-58) legitimized those demands and resulted in greater curricular emphasis on science, math, and college preparatory programs. The post-Sputnik calm (1959-62) resulted in a reduction in political activity, educational demands, and curricular responses since demands had been substantially met the previous period. The period of reaction (1963-65)



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TECHNOLOGICAL IN-MIGRATION AND CURRICULAR CHANGE:
EDUCATIONAL POLITICS IN ALBUQUERQUE, 1945-1965

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American educators, in recent years, have become increasingly aware of the serious problems engendered by mass population mobility. The mass migration of the rural poor, particularly the Negro, to the inner city, and the corresponding flight of the white middle class to the suburbs, is one of the most salient social realities of the contemporary scene. This migration has created unique problems and has generated new demands which are severely testing the resiliency and responsiveness of school systems throughout the country. Conant was among the first to direct attention to this demographic phenomenon and to the serious challenge it poses for the schools. More recently, Iannaccone addressed himself to this problem—placing it in a more theoretical context. 2

But, important as it is, the migration of the rural poor to the urban gnetto is not the only aspect of population mobility which has challenged the adaptiveness of the American public school. A "new" migration has seen spawned by a rapidly expanding technology. This technological migration, involving the highly educated and socially sophisticated savants of science and technology, has invaded many previously isolated and parochial communities. It is constantly occurring as new industries, particularly those related to space exploration, defense, and atomic energy, search for new localities in which to expand. Furthermore, the requirements of physical space and security often dictate that less-populated areas of the



country be given priority. Therefore, the technologicallyinduced community, frequently superimposed on an existing
parochial society, has become a permanent feature of the
American civic and educational scene, and one that is likely
to become increasingly important. Oak Ridge, Tennessee and
Huntsville, Alabama in the South, Richfield, Washington in the
Northwest, and Los Alamos, Alamogordo, and Albuquerque, New
Mexico in the Southwest are typical examples of the technologically-induced community. Technological migration, then, produces major demographic changes—changes which place great
stress on local institutions and which are likely to provide
yet another test of the viability of the American educational
system and of its responsiveness to the demands of a dynamic
society.

This study investigated the impact of a large in-migration of scientists and technicians on the educational policies of a single community, Albuquerque, New Mexico, during the years 1945-1965. It was the purpose of the study to analyze the educational politics of Albuquerque during this period, particularly as related to an increasing tempo of demands for a more academic curriculum.

Conceptual Framework

According to Easton, a political system, in any society, makes decisions concerning the distribution of those objects and things most valued by society, and these decisions are



"authoritative" (binding) with respect to all members of society. If a particular behavior is involved in "allocating" (distributing) values and if the allocation is considered binding by the society, it is "political behavior."

Before utilizing the Easton model in this study, certain modifications were necessary. These modifications were largely a matter of translation from the larger world of the general political system to the much smaller and more constricted domain of "parapolitical" subsystems of which the educational system is a characteristic example.

American public school systems, is a part of the larger political system. In fact, its very existence is due to the fiat of the State Government. The boundary of the Albuquerque Public School System is legally determined, and its actions are circumscribed by both law and administrative regulation. Within the context of this constricted scope, the Albuquerque Public School System becomes a political system when it engages in the authoritative allocation of certain educational and other values formally delegated to it by the larger political system.

Another modification of the scope was a direct consequence of the first. The rather shadowy and general "authorities" posited by the Easton model acquired substance and specificity when translated into the decision makers of the micro-world of the local school system. The necessity for empirical



referents require the introduction of structure and role into the general model.

Methodology

A case study design was employed in this investigation—a design which sought to explore the articulation, processing, and implementation of demands for a more academic curriculum within the Albuquerque Public Schools during the twenty-year period, 1945-1965. Since the study dealt with event of the past, the design relied heavily on historical methodology. Collection and analysis of documents and interviews were the major research methods employed.

The data collection process relied largely on the location of relevant documents and on interviews with persons identified by these documents. While all interviews were all relatively unfocused, certain questions were asked of most respondents. Among the standard questions asked were the following:

- 1. To the best of your knowledge, which persons were involved in making final curriculum decisions in the Albuquerque Public Schools during the years 1945-1965?
- 2. Which persons were able to bring curriculum demands to the attention of the authorities for final determination?
- 3. What was the effect of Sputnik on the technocrats? On the schools?



- 4. Were the technocrats influential in having their curricular demands adopted? How were these demands made? Can you specify individuals or groups who made such demands?
- 5. Can you suggest any sources, either persons or documents, which might be able to contribute to this study?

Report of Data

During the twenty-year period considered in this study (1945-1965), a plethora of wants (expectations, desires, needs, and interests) were converted, by the patrons of the Albuquerque Public Schools, into explicit demands for allocation of scarce educational resources. These demands emanated from many and diverse sources, both as individual expressions of wants and as demands flowing from the mediation of groups. Collectively, they formed a most important category of inputs for the Albuquerque Public Schools, as a parapolitical system; they provided the raw material which this system processed during the period reported by this study.

But the demands were not the only inputs. As Easton makes clear, a political system must import a constant flow of support—support for the political community, the regime, and the authorities. Support for these vital political objects largely determines whether or not a system survives the stresses of the political world. Just as widespread support inputs are necessary to the survival of a general political



system, support from school patrons is vital to the political health of a school system. The Albuquerque Public Schools, therefore, received a constant flow of support during the two decades of this study--support which, like the demands noted above, emanated from a variety of environmental sources, individual and collective.

For analytical purposes, a distinction will be made between traditional and technocratic demands and support. While Easten does not make this particular distinction, he does make clear that demands and support may be individual or collective and that cleavages may exist between groups or classes within the political environment. The data reveal that a definite cleavage existed between the general community and the scientific one and that this cleavage was reflected, in part, by differences in the demands and support emanating from each source—the technocratic inputs being quite different from those traditionally entering the Albuquerque Public Schools.

Technocratic demands and support were specific. The technocrats called upon the school system to allocate educational values in such a way as to enhance the opportunities of college-tound students. These expressions of concern for a "quality" curriculum, that is, one which would enable the sons and daughters of the technocrats to matriculate in prostigious colleges and universities, took many forms--letters to the editor, telephone calls to school board members and school



administrators, informal social pressures, reports of parent groups and committees, rival candidacies for school board membership, and finally formal intervention on the part of Sandia Corporation, the largest local employer of technocrats. Those demands were both expressed and implied, in keeping with Easton's analysis. 6

These technocratic demands were explicit in nature.

They called for such particular allocations as a "tougher" curriculum, advanced courses in science and mathematics, stricter grading methods, ability grouping, and better teachers and teaching methods. Most of these demands were different from those which had been traditionally imposed on the Albuquerque Public Schools.

Similarly, in discussing those support inputs which may be identified as emanating from the technocrats, one discovers that they were, again, quite explicit and that they were directly related to the technocrats' concern for a "quality" curriculum. They were, in Easton's terms, "specific support," that is, they were generated by particular outputs—outputs, which in this case, were responsive to technocratic demands. Very little more general or "diffuse support" may be attributed to the technocrats with certainty. Technocratic support was tied to particular curricular outputs, such as ability grouping or advanced science courses; it was in no sense a general endorsement of the Albuquerque Public Schools political



community, regime, or authorities.

In contrast, the demands and support which flowed from the traditional sources in the general community were much broader and more diffuse. Curricular demands, for example, were seldom enunciated and certainly not in the specific terms of the technocrats. The Albuquerque community had, apparently, been most satisfied with the output allocatio.s of the public schools. Evidence supporting this liew is abundant. The fact that John Milne romained in office as Superintendent of the Albuquerque Public Schools for fortyfive years (1911-1956) is mute testimony to the political tranquility that existed within the schools prior to the coming of the technocrats. Further evidence is provided by the longovity in office of School Board members and by the fact that a school bond issue has never been defeated in Albuquerque. Furthermore, the dearth of demands from the general community during the whole period of this study implies either apathy or satisfaction with the status quo.

When attempting to arrange the various data in chronological order, the investigators were struck by certain tendencies and commonalities which seemed to characterize particular periods of time. The following discussion is the result of those observations.

The pre-Sputnik years (1945-September, 1957). This



time period was characterized by two major tendencies with respect to the data, one associated with inputs and the other with outputs. First, it was characterized by the development of a major cleavage between the traditional spokesmen for the general community and the newly arrived technocrats. This cleavage produced divergent demands and support during these years of intensive technocratic in-migration.

Secondly, this cleavage between the general and technocratic communities resulted in "output failure" with respect to the educational demands of the technocrats. Ouput failure, as defined by Easton, is the failure to meet the demands of the politically significant members of a system. That there were few outputs which met the demands of the newly in-migrated technocrats prior to the launching of Sputnik is clear from a review of the available output data of the school system.

That the technocrats were politically significant is demonstrated by their effect on the larger community political system as reported in Cline and Wolf. This period, then, featured a considerable number of educational demands on the part of the technocrats which produced absolutely no response in terms of educational outputs.

Sputnik era (October, 1957 to December, 1958). The era rather rudely ushered in by the spectacular appearance of the first Soviet spacecraft featured a considerable increase in



demands for a "quality" curriculum. Albuquerque, because of its unusual concentration of technocrats, appears to have been subjected to an even greater clamor than elsewhere in the United States. It is the position of this paper, however, that the Soviet Sputnik did not, by itself, precipitate these demands for a college-preparatory curriculum. The emergence of Sputnik merely served as a catalyst in providing direction and leverage to demands that had already been articulated by the technocrats.

An increase in the number of demands for a "quality" curriculum was not the only change wrought by Sputnik, however. The increased leverage was largely provided through the process of legitimation. The previously ignored demands of the technocrats became legitimized due to the public concern and furor over the pre-emptive Soviet space achievement. And, Ed Minteer, traditional newspaper spokesman for the community, seized upon this opportunity to make the demands of the technocrats his own in his column. He became, in effect, the legitimized agent of the scientific community, for the success of the Soviets encouraged even the layman to become a critic of current science education.

The legitimation of the technocrats' demands following the launching of Sputnik assured that they would be heeded by the authorities in the Albuquerque Public Schools and resulted in a series of major curricular outputs during this period,



all intent upon upgrading the curriculum.

The post-Sputnik calm (1959-1962). This period was characterized by a considerable reduction in political activity. There were relatively few demands of any kind and correspondingly few outputs.

This decline in activity may be attributed to two factors. First, the cleavage between the wider community and the technocrats had apparently disappeared in the aftermath of Sputnik and, secondly, the technocrats' demands had been substantially met by the spate of outputs released during the preceding period. Political stability had been achieved by the Albuquerque Public Schools and stresses reduced to a minimal level.

The only significant political activity to be reported during this period was a series of specific support inputs from the technocrats' major employer, the Sandia Corporation—support which was probably prompted by the fact that the technocrats' demands had been so largely met. These inputs usually took the form of assistance to math and science programs.

The period of reaction (1963-1965). This period was characterized by the emergence of new cleavages on the Albuquerque scene. Partly national and partly local in origin, a new movement developed which emphasized compensatory and vocational education for the disadvantaged. Supported by various



federal programs and by local organizations, particularly of Mexican-Americans, this movement proposed radical changes in the "college-preparatory" oriented curriculum of the Albuquerque Public Schools.

As new demands were fed into the system from the proponents of this movement, even the technocrats joined the ideological bandwagon and a number of significant new curricular outputs began to emerge, the most important of which was probably the establishment of the Technical-Vocational Institute. The cycle of inputs and outputs generated by this movement has, in fact, continued to the present.

In sum, at least with respect to curricular decision-making, the years prior to the launching of the Soviet Sputnik were characterized by apathy, indifference, and bureaucratic resistance to the demands for a more academically-oriented school system emanating from the technocrats.

The dramatic appearance of Sputnik, however, broke the curricular logjam by legitimizing the scientists demands and gaining for them powerful allies from the ranks of the traditional community political structure. Among the new adherents was the editor of the widely circulated morning newspaper.

The new curriculum. The period immediately following Sputnik, then, was characterized by a number of authoritative allocations of educational values which radically altered the



curricular structure of the Albuquerque Public Schools.

Major curriculum position statements were issued by the Superintendent and adopted by the Board of Education. These curricular revisions resulted in the sudden appearance of a plethora of expensive (in terms of equipment and small class size) new advanced courses, particularly in science and mathematics.

An examination of the federal impacted area data for these years revealed that most of the new courses were offered in schools heavily populated by the sons and daughters of the technocrats. An examination of the curricula in schools servicing the less-favored socio-economic areas of the city revealed a corresponding paucity of course offerings appropriate to lower-class Mexican-American children. The curricular distortion created by the migration of the technocrats, then, contributed to reducing the already inadequate educational opportunities offered to the Spanish-speaking minority.

In addition to the advanced academic courses, the new policies of the Albuquerque Public Schools resulted in a general tightening of the academic requirements of the system and an increased emphasis on homogenous grouping, homework, and "high" standards.

Conclusions and Implications

America's institutions are facing urgent new challenges



as a result of unparalleled social and technological change. Extreme population mobility, due to economic and technological factors, has become commonplace. This extreme mobility has created both urban ghettos and new centers of technocracy, and American schools are being severely tested as they seek to adapt to diverse, but rapidly changing, conditions. While a great deal of attention has been devoted to the serious educational problems of the urban ghetto, very little attention has been focused on the emerging educational patterns of the new, scientifically-induced communities.

This study has attempted to interpret the parapolitical process that occurred within the public schools of Albuquerque, New Mexico, as the educational system sought to meet the demands of a fast-changing environment. The sudden immigration in the 1940's of large numbers of scientists and technicians radically altered the course of Albuquerque civic life. The new technocrats brought with them unique expectations for the schools. They were quick to articulate demands for a "quality" curriculum—a curriculum which would allow placement of their children in colleges and universities with status and standing in the academic world—and they expected an appropriate and expeditious response to these demands.

It is hoped that this study has contributed towards an understanding of this process as it occurred within the Albuquerque Public Schools. And, since technological migration



is not an isolated phenomenon, it is also hoped that this study will be useful in analyzing the impact of the new technocracy on the schools of other communities undergoing similar change.

The responsiveness of schools and other institutions to the exigencies of change is of utmost importance. The ability of these institutions to process, successfully and creatively, the demands of a rapidly changing society may well determine the fate of a nation. A thorough understanding of the parapolitical processes of educational change may, therefore, be a matter of great urgency.

In a sense, this study has sounded but another variation on one of the most dominant and persistent themes to inform the history of the American people. Migrations have played an important role in all human history, but they have been especially important to America. The great trek which led to the settlement and exploitation of the West was but one supremely important manifestation of the restless energy and mobility which has always characterized Americans.

In a sense, the migration and subsequent curricular distortions were the product of the federal government. Increasingly, large corporations and the federal government are creating mass migration through the amplication of economics and technology.

While there is often some awareness of the possible



consequences of such movements, much more needs to be known. The government, for example, recognized the potential difficulties inherent in the sheer increase in population occasioned by major federal projects and compensated for this with impacted area funds. But no one appeared to be aware of the educational consequence to be derived from the nature of the population inputs.

While federal funds poured into Albuquerque to compensate the local school system for the burdens imposed on
it by the A.E.C. bases, the system allocated the additional
monies for additional distortions, thus compounding the
problem.

It was not until the national movements for the benefit of the disadvantaged, which began in the mid-1960's, that the Albuquerque Public Schools began to repair the damage that had been done earlier by federal funds. 11



FOOTNOTES

- 1. James B. Conant, Slums and Suburbs (New York: McGraw-Hill Book Company, 1961).
- 2. Laurence Iannaccone, Politics in Education (New York: Center for Applied Research in Education, 1967).
- 3. David Easton, A Systems Analysis of Political Life (New York: John Wiley & Sons, Inc., 1965).
 - 4. Ibid., p. 21.
 - 5. Ibid., p. 236.
 - 6. Ibid., p. 40.
 - 7. Ibid., p. 249.
 - 8. Ibid., p. 249.
 - 9. Ibid., p. 60.
- 10. Dorothy I. Cline and T. Phillip Wolf, "Albuquerque: The End of a Reform Era," <u>Urban Politics in the Southwest</u>, ed. by Leonard Goodall (Tempe, Arizona: Arisona State University Institute of Public Administration, 1967), p. 8.
- 11. This report is the result of an unpublished doctoral dissertation prepared by Dr. Hales at the College of Education, University of New Mexico, 1969.